EXD.R

Vol. 87. Part 9. Pp. 217-232, 1 pl. 27th September, 1938.

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OF THE

ROYAL ENTOMOLOGICAL SOCIETY

OF

LONDON

World List abbreviation: *Trans. R. ent. Soc. Lond.*

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LONDON:
PUBLISHED BY THE SOCIETY AND
SOLD AT ITS ROOMS, 41, QUEEN'S GATE, S.W.7

Price 4s. 6d.

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SOME INTERESTING RHOPALOCERA FROM THE SOUTHERN SUDAN

By G. D. Hale Carpenter, D.M.

(*Hope Professor of Zoology (Entomology) in the University of Oxford.*)

(Read 1st June, 1938.)

With Plate 1.

Major I. G. Owen while in the Sudan during the last few years (1932–1936) made extensive collections of butterflies in the extreme south and south-west, many of which he generously gave to the Oxford University Museum. I had hoped to be able to write a comprehensive account of the butterflies of, at least, the southern provinces of the Sudan equivalent to that on Abyssinia (1), but pressure of work has made it impossible to carry out the laborious survey of literature and of the collections at Tring and the British Museum (Natural History), without which a complete account would be impossible.

This paper is therefore confined to recording and commenting on the more interesting captures, including a few which Major F. Moysey of Kitale, Kenya, kindly presented from some of the same localities. It is only a further contribution towards recording the fauna of a little-known part of Africa, revealing further evidence of *Western* affinities. It is, I think, important to keep the two main areas, Mongalla and Bahr-el-Ghazal Provinces, distinct; therefore in each group of butterflies section A will deal with Mongalla; B, with Bahr-el-Ghazal. The localities in each area from which specimens have been received are as follows. (See rough maps under reference (2), pp. 26–27.) The altitudes, latitudes, and longitudes are as given by Major Owen.

A. Mongalla Province.

The Acholi hills lie along the south side of the block labelled "Imatong Mts." in the map cited, on the frontier between the Sudan and Uganda. The Kineti valley lies between them. "Dogotona" in the map should be Dongotona.

Imatong Mountains.

Imilla, Itabal (6500 ft., at head of Kineti valley), Kineti valley (running northwards between Imatong Mts. and Acholi hills), Logoforok (at the northern foot of the mountains, 3000 ft.), Torit (at the northern foot of the mountains, about 2032 ft., 4° 24′ N., 32° 33′ E.).

Acholi Hills.

Katire (4000 ft., in Kineti valley), Lokwi (3500 ft., in Kineti valley, 20 miles from Torit), Lotti (32° 32′ E., 4° 3′ N., 3500 ft., on south-west side of the Acholi hills).

Miscellaneous localities.

Khor Kudu, about 1900 feet, between Torit and Mongalla station. Liria, a cluster of hills about 4° 40′ N. and 32° 10′ E. Loggerum (stated by Kent-Lemon to be north of the Imatong Mts. near the Koss river at 4° 24′ N., 32°

55′ E.), Magost (5° 10′ N., 33° 45′ E., about 2500 ft.), Mongalla station (on the Nile at about 5° 10′ N., 31° 45′ E.), Onyira (6° N., 28° 50′ E., 2300 ft.), Talanga forest (between Torit and Katire in the Kideppo valley, only separated from Lotti by the Opari Hills). Tali (about 100 miles west of the Nile, 5° 45′ N., 30° 45′ E., about 1500 ft.), Talodi (a little north of 10° N., and south of Nuba Mts., see map in (2) p. 26). Boma plateau (see map in Ref. 1, 6°–7° N., 34°–35° E.).

B. Bahr-el-Ghazal Province.

Most of the localities are on the Congo–Nile divide, the boundary between the Sudan and French Equatorial Africa. Bangange (between Yambio and Tembura), Bendere (2300 ft.), Bendi (60 miles west-south-west of Yambio, 2400 ft.), Li Yubu (or Yubu, 2300 ft.), Nabagi (25 miles south of Li Yubu, 2347 ft.), Tembura (167 miles east of Wau), Wau, the capital of the province (7° 42′ N., 28° E.), Yambio (4° 30′ N., 28° 50′ E.).

The following species or forms have been selected as worthy of notice in this paper. The order is as in Seitz, *Grossschmett. Erde*, the names where different from those given by Aurivillius are those employed in the British Museum (Natural History).

PAPILIONIDAE.

A. (Mongalla Province).

Papilio rex franciscae Carptr.

Four males from Nagichot, Didinga. Two have the base of area 1b on the fore-wing suffused with orange-brown but there is no definite sickle-shaped mark: one has a faint trace of orange-brown at the base of 1b and a rather faint white sickle, the other has an extremely well-marked white sickle so that the butterfly is extremely like *rex abyssinicus* Poult. except for the more curved outer (hind) margin of the fore-wing. The underside of the hind-wing in all has the usual strong orange-brown costal marking; the fore-wing has only a few brown scales at the base on the underside.

One female from Nagichot has much less brown than in the four originally described. The amount of orange-brown in area 1b of the fore-wing is slightly more than in the first two males above, and there is a faintly orange-brown sickle.

There is also one male from the Imatong Mts. quite like those from Didinga originally described, with scarcely any orange-brown on the fore-wing in area 1b, and no sickle.

Papilio dardanus dardanus Brown.

Males from Lotti and Torit are like the usual Uganda forms: the tails little marked with black and the discal black band of the hind-wing separated into three distinct blotches.

The females, from Lotti, are of the form *hippocöonoides* Haase, but somewhat transitional between it and the typically eastern *hippocöon* Fab. in the development of the white area of the hind-wing (five specimens); and the form *planemoides* Trim., four specimens showing the usual variability.

Very much more interesting are females from the Boma plateau, one of which is figured on Plate 1. This is a male-like specimen, in general appearance like that taken by Hodson at Kide's village (1, Pl. IX, No. 9), but smaller and with shorter tails: the latter are indeed remarkably short and delicate. The intra-cellular black bar of the fore-wing is heavily marked and very nearly

touches the posterior border of the cell at the origin of vein 3. On the costal where the subcostal vein bends back from the costa, there is a small patch of black scales, somewhat more decided than in Hodson's specimen. This is of great significance as the commencement of the black which eventually forms the distal boundary of the pale intra-cellular spot so persistent in female *dardanus*.

The black border of the fore-wing has a yellow spot in areas 2 and 3 and is deeply bayed by yellow in area 4 (1, p. 326). The discal black band of the hind-wing is more developed even than in Hodson's specimen, especially the patch beyond the end of the cell. The marginal arch-markings do not continue directly on to the tail, of which only the part anterior to the central vein is marked with black.

The under surface has a complete heavy black band across the disc of the hind-wing : the remainder of the hind-wing is light brownish-yellow.

Two specimens of the primitive form *niavioides* Kheil were taken on the Boma plateau in August : in general appearance resembling the figure of that of Hodson's (*q.v.*). One, taken on the 3rd, has the tails slightly shorter, the white spot on the costa just beyond the end of the cell slightly larger, and the black discal patches on the broad black border of the hind-wing are more distinct than in Hodson's specimen (*cf.* the description of Scott's females in 1, p. 328, and Poulton's remarks on p. 327). The underside of this specimen shows a white spot in area 1b, in the black border of the fore-wing : this is not shown in Hodson's specimen because it is just at the edge of the large white patch which extends outwards farther than in Owen's specimen. The second specimen of *niavioides*, taken by Owen on the Boma plateau on 8th August, has the tail on the right side broken off : the other is even shorter than in the first specimen or any of Hodson's; it is not spatulate, but gradually diminishes towards the end. This specimen has no white spots in the black border of the fore-wing, except at the apex, thus going farther in this direction than any of Hodson's in which these spots are present to varying degrees. The black discal patches in the broad border of the hind-wing are more distinct than in any other of the five *niavioides* specimens, which have been studied, but they do not appear at all on the underside, on which (as in Owen's first specimen) there is a very regular reddish-brown discal band from costa to anal angle, slightly broken by white, in this specimen but not in the first, at the end of the cell.

Papilio jacksoni E. M. Sh.

Not recorded in my previous paper : a male was taken at Katire.

Papilio nobilis Rog.

Seven males from Didinga agree with previous specimens of the subspecies *didingensis* Carptr.

Papilio hesperus Westw.

Not previously recorded : a male taken at Itabal.

Papilio mackinnoni E. M. Sh.

Not previously recorded : a series from Imatong Mts., and Itabal.

Papilio nireus pseudonireus Fldr.

Specimens from the Boma plateau agree with Hodson's specimens.

Papilio bromius chrapkowskii Suff.

Not previously recorded : taken at Lotti.

Papilio leonidas Fab.

Two specimens from the Boma plateau are a little nearer the Abyssinian race *umanus* R. & J. than is Hodson's specimen in Abyssinia, below Gore. Above, the pale area at the base of the hind-wing is very faintly discernible in area 1b as far as the origin of vein 2 : below, the extreme base of area 2, beyond the origin of vein 2, has a pale area which is smaller than in Hodson's specimen.

Papilio antheus nyassae Btlr.

Not previously recorded : plentiful, in various localities. Between Torit and Katire, Katire, Logoforok, the Kineti valley between the Imatong Mts. and the Acholi hills, and Dongotona mountains.

Papilio policenes Cr.

Three from Lotti are worth mentioning because there is still no evidence of this species farther north than the Acholi hills (see remarks on its absence from Abyssinia, 1, p. 417).

Papilio colonna Ward.

The capture of quantities of this species on the Boma plateau was most welcome confirmation of Hodson's single specimen. The discontinuity of distribution of this species is surprising; it is not known anywhere in Uganda, but occurs from Delagoa Bay to Kenya Colony. The green median band of the hind-wing is especially well developed behind the median vein in area 1b; in its maximum development very nearly reaching as far as the red spot in area 1a.

B. (Bahr-el-Ghazal).

Papilio dardanus dardanus Brown.

The female form *hippocöon* Fab. from Bendere is of not quite the ordinary west African type, being slightly transitional to the eastern *hippocöonoides* Haase. Some specimens have the white hind-wing patch extending half-way between the end of the cell and the margin of the wing. The subapical patch of the fore-wing is also transitional to the larger area of the eastern race. It is most interesting to record the rare female form *dionysus* D. & H. from Bendi, and also a rather pale specimen of the form *trophonissa* Auriv.

Papilio cynorta Fab.

A female from Bendere of an interesting transitional form, with the pale areas not contracted in size but rich ochre yellow in colour.

Papilio plagiatus Auriv.

This rare and little known species seemed not uncommon at Bendere. The female is very strikingly different from that of any allied species, while the male is with difficulty distinguished from that of *P. cynorta*. It is, however, of a purer white, and the proximal ends of the white areas on the fore-wings are sharpened into wedges owing to the thickening of the black suffusion along the bases of veins 2, 3, 4, 5. The pointed proximal end of the white spot in area 5 is particularly noticeable.

Papilio zenobia Fab.

Taken at Bendere.

Papilio gallienus Dist.

A specimen from Bendere is nearer to the Uganda race *whitnalli* Neave than to the typical western race.

Papilio mackinnoni E. M. Sh.

It is interesting to record this somewhat eastern species from so far west as the border of the Sudan and French Equatorial Africa : it is known from Ruwenzori. Taken at Bendere.

Papilio menestheus lormieri Dist.

This western race was taken at Bendere.

Papilio pylades pylades Fab.

This species was taken on the Congo–Nile divide at Bangange between Yambio and Tembura, in its western form.

Papilio antheus nyassae Btlr.

Specimens of this, the eastern race, were taken in the Bahr-el-Ghazal Province at Tali, one hundred miles west of the Nile at an altitude of 1500 feet.

PIERIDAE.

A. (Mongalla).

Appias sabina Fldr.

Not previously recorded from the southern Sudan, this species was taken on the Boma plateau, where it was also found by Hodson.

Colotis eupompe pseudacaste Btlr.

A very beautiful female from Mongalla station has all the pale areas of the upperside of the pinkish-orange tint often seen in the subapical patch.

Nepheronia argia poppea Don.

This western form of the female was taken at Lotti and on the Imatong Mts.

B. (Bahr-el-Ghazal).

Belenois calypso welwitschi Rogenh.

Taken at Bendere.

Nepheronia argia argia Fab.

Females of this form, not *poppea* Don., were taken at Bendi.

DANAIDAE.

A. (Mongalla).

Danaus formosa Godm.

Twelve males from Didinga agree with the single specimen previously recorded from that area in being transitional from the typical *formosa* Godm. of east Africa to the Abyssinian *neumanni* Rthsch.

Amauris niavius L.

Three specimens from Didinga show different gradations between eastern and western races. Two of them are more eastern with the white of the hind-wing well beyond the end of the cell : in the other, which is more like the transitions to *aethiops* R. & J. previously described, the white only just reaches the tip of the cell.

As regards the white subapical patch of the fore-wing, however, all three are transitional to *aethiops*.

Specimens from the Boma plateau agree with those taken by Hodson. Six from Lotti are transitional to the western race, the white on the hind-wing not extending beyond the tip of the cell.

Amauris damocles Beauv.

It is worth mentioning that this species has not yet been taken in any of the areas under consideration, nor is it known from Abyssinia.

Amauris hecate Btlr.

This typically west African species extends well into Uganda but has not previously been recorded from the Sudan. It was taken at Lotti.

Amauris echeria jacksoni E. M. Sh.

Sixteen specimens from Lotti, Itabal, Katire.

It should be noted that *A. albimaculata* Btlr. has not yet been found north of the Uganda–Sudan border.

Amauris lobengula abessinica Schmidt. (= *mongallensis* Carptr.).

It is to be regretted that no further specimens of this interesting northern race of a southern species have been taken.

B. (Bahr-el-Ghazal).

Amauris niavius L.

Five specimens from Bendere and Bendi are of the typical western race of *niavius* L.

Amauris hecate Btlr.

Taken at Yambio.

SATYRINAE.

Mycalesis asochis congolensis Joicey & Talbot.

A fine specimen taken at Li Yubu, Bahr-el-Ghazal Province, on the Congo–Nile divide.

NYMPHALINAE.

A. (Mongalla).

Charaxes eudoxus mechowi Rthsch.

The capture of this interesting rarity in the Imatong Mts. by Major Moysey has already been recorded (3, p. 88).

Charaxes pythodoris Hew.

A specimen from Lotti.

Charaxes paphianus Ward.

Taken in Didinga, not previously recorded from that locality.

Cymothoë theobene D. & H.

Taken at Lotti.

Cymothoë caenis Drury.

Taken at Lotti and in the Kineti valley : females of the dark brown form *adelina* Hew., the paler *lutea* Schultze, and transitional form *adelina* to *dumensis* Schultze. It is curious that this very common and migratory species should not previously have been recorded for the Mongalla Province.

Diestogyna saphirina Karsch.

A female was taken at Torit.

Euphaedra spatiosa sudanensis Talb.

Taken at Lotti.

Euphaedra eleus Drury.

This variable species seems abundant in this region : specimens were taken on the Imatong Mountains and the Acholi hills.

It is interesting that the more perfectly developed mimic of *Aletis*, *E. ruspina* Hew., has not yet been recorded from the Sudan, although the model is known (4).

Aterica galene Brown.

Specimens from the Boma plateau are of two forms, which suggests that they are not geographical races but dimorphic forms occurring together. These are the typically white-spotted *galene* Brown and a form with the same pattern but all the pale areas of a dark brownish-orange. The brown areas are of the same size as the white areas and not enlarged as in *theophane* Hpffr.

Pseudacraea boisduvali Dbl.

A male from Didinga is of the typically western race *boisduvali* Dbl. without any yellow at all on the fore-wing, thus going further than two males previously recorded from that locality. Two females of this race were also taken at Lotti.

Pseudacraea eurytus L.

This fascinating species is well established in the southern Sudan, in several forms. A female transitional between *terra* Neave and *tirikensis* Neave was taken at Lotti, but no typical *tirikensis* : it is noteworthy that no black and white models for *tirikensis* have yet been recorded from the areas under consideration (but a ♂ *Bematistes macarista* E. Sh. shows that this species does exist at Katire). It is therefore the more interesting that four of the female form *poggeoides* Poult. have come from Lotti, seeing that the model *Bematistes poggei nelsoni* Gr. Sm. also occurs there.

A male of a form of *terra* Neave, rather dark with the orange-brown areas contracted, was taken at Didinga. Typical male *terra* were taken on the Acholi hills, at Lokwi and in the Kineti valley : forms of *Bematistes epaea* Cr. with somewhat similar coloration occur in the same regions. Thus the coinci-

dence in distribution of corresponding forms of model and mimic seems as close as in the other areas where the question has been minutely studied (5). There remains the strange form *youbdonis* Ung. : first described from Abyssinia, and now recorded from the Boma plateau (eminently Abyssinian in faunistic affinity) by Major Owen, who took a female in first-class condition, closely resembling that of Hodson's which was figured and discussed previously. No model for this distinct form has been found as yet.

Pseudacraea lucretia Cr.

Both the typical form, and a variation (*protracta* Btlr.) with the hind-wing patch not white but yellowish, occur abundantly at Lotti.

Neptis metella D. & H.

This species can now be added to the scanty *Neptis* fauna of south Sudan; taken at Lotti.

Neptis nemetes Hew.

Also now recorded for the first time, and from Lotti.

Mesoxantha ethosea Drury.

Males and females taken at Lotti.

Ergolis pagenstecheri Suff.

Taken between Lotti and Katire.

Neptidopsis ophione ophione Cr.

Common : taken at Lotti and Onyiro.

Kallima jacksoni E. M. Sh.

This lovely species seems plentiful : taken at Torit, Latuka Hills, Lotti.

Apaturopsis cleocharis Hew.

This very little known species seems not uncommon at Lotti, where both males and females have been taken.

Hypolimnas salmacis Drury.

Abundant at Lotti, and of the ordinary Uganda form *platydema* R. & J. The form *monteironis* has not yet been taken in these localities. See notes on the geographical range of these forms at reference (6).

Hypolimnas dubia Pal.

The Sudan specimens are all western in character. *H. dubia dubia* Pal. was taken at Lotti, and the form *daemona* Stgr. The form *anthedon* Dbl. also comes from Lotti : one specimen is perhaps slightly transitional to *wahlbergi* Wallengr.

Salamis temora Fldr.

Quite common at Katire and Lotti.

Salamis parhassus aethiops Pal.

Specimens from Lotti, Katire and Kineti valley, taken in May–July, are rather unusually infuscated with black scales: this is not so in the specimens previously recorded from Didinga. Very possibly this infuscation is a wet-season phenomenon.

Salamis anacardii nebulosa Trim.

Taken on Boma plateau and in Kineti valley.

Catacroptera cloanthe Cr.

Specimens taken at Torit, Logoforok, and in the Kineti valley resemble those taken by Kent-Lemon and described previously.

Precis terea Drury.

Three specimens from Lotti and Khor Kudu are of decidedly western type; one from Kineti valley is transitional to Hodson's Abyssinian specimens.

Precis tugela Trim.

A male was taken at Katire.

Precis westermanni westermanni Westw.

A series from Lotti. Two females have the fore-wings dark brown, in one there is a discal suffusion with whitish scales.

Phalanta columbina Cr.

All *Phalanta* sent by Major Owen are *columbina*, as also are those previously reported in the Kent-Lemon collection as *phalantha*.

Argynnis hanningtoni imatonga Riley.

See reference (1), p. 429.

B. (Bahr-el-Ghazal).

Euxanthe eurinome ansellica Btlr.

A specimen from Bendi, in the large size of the flame-shaped spot in the cell of the fore-wing, matches specimens in the British Museum from Haut Kasai. Other specimens from Sierra Leone and Ivory Coast have this spot much smaller.

Charaxes candiope Godt.

Taken at Bendi.

Charaxes laodice Drury.

Taken at Bendere.

Cymothoë beckeri theodosia Stgr.

This common west African species seems abundant at Bendere. Aurivillius, *in* Seitz, stated that this species occurs in Uganda, but I have not seen it there nor do I know of its occurrence.

Cymothoë jodutta Ward.

Taken at Bendere. The subapical pale spot does not run into the main pale area as in the type specimen, but is distinct.

Cymothoë sangaris Godt.

Bendere.

Euryphene tentyris Hew.

Bendere.

Euryphene zonaria Btlr.

Bendere.

Euphaedra xypete Hew.

Bendere and Bendi.

Euphaedra zaddachi Dew.

Bendere.

Pseudacraea eurytus L.

A male specimen of *ruhama* Hew., a form of the protean *P. eurytus* L., was taken at Bendere. A female of form *terra* Neave, transitional to *tirikensis* Neave, with the inner-marginal area of the fore-wing very pale, and a trace of the basal red-brown triangle on the underside of the hind-wing was taken at Bendere. A typical female *terra* came from the same locality.

ACRAEINAE.

A. (Mongalla).

Bematistes aganice Hew.

It is worth recording now that this species, so abundant in east Africa and parts of Uganda, and apparently spreading (7) has not yet been taken in the southern Sudan, although a race occurs in Abyssinia.

Bematistes poggei nelsoni Sm.

Five specimens have been taken at Lotti, Katire, and Tallanga forest. It would seem to be more abundant than the following species. Kent-Lemon also took it at Issourie.

Bematistes macarista E. Sh.

A single male has been taken at Katire.

Bematistes epaea Cr.

Not uncommon at Lotti: some of the specimens have already been the subject of comment (8). Typically red-brown males of the western race *epaea* Cr. occur with females of almost the same colour, and others transitional in varying degrees to the Uganda race *paragea* Sm. Thus in one locality there are transitions between *epaea* Cr., *homochroa* Jord. and *paragea* Sm.

Acraea alciope Hew.

The male is not of the Abyssinian race *schecana* R. & J. Females of the western race *alciope* Hew. and of the Uganda race *aurivillii* Stgr. have been taken at Lotti, but not in sufficient quantity to give the relative proportions of each.

Acraea esebria monteironis Btlr. (or near).

Specimens of somewhat indeterminate appearance from the Boma plateau resemble those taken by Hodson in the same locality.

Acraea jodutta Fab.

A male was taken at Katire.

Acraea lycoa Godt.

A long series of females from Lotti are of the western form *media* Eltr. and not of any of the forms belonging to the eastern area, Uganda and Kenya Colony. The males, however, are slightly less western in appearance.

Acraea pharsalus Ward.

Specimens from Lotti and between Lotti and Katire are of the form *pharsalus* Ward usual in Uganda. But specimens from the Boma plateau are of the northern race *rhodina* Rthsch. occurring in Abyssinia : one female was taken, similar to the males.

Acraea natalica abadima Ribbe.

Taken at Lotti and Lokwi.

Acraea caecilia Fab.

Taken in Mongalla station and at Tali and Khor Kudu.

Acraea egina Cr.

The race *egina* Cr., the normal form in Uganda, was taken at Lotti and Lokwi, but an amazing example of the south-eastern race *areca* Mab. was taken on the Boma plateau (Pl. 1, fig. 4). Ungemach recorded a form near *areca* from Youbdo in western Abyssinia, while Hodson took typical *egina* in the south-west of Abyssinia. The form *areca* is usually considered to be the south-eastern race, and the nearest locality to Abyssinia and the Boma plateau from which I have been able to find specimens is Rabai near the coast of Kenya Colony behind Mombasa, and Moshi in Tanganyika Territory. It must be supposed that the two forms are different mutants, one more suited to greater humidity and therefore predominant in the western area, the other faring better in the south-east. Where drier conditions prevail, however, the latter form may appear even in the area of distribution of western forms.

Acraea caldarena Hew.

A series taken by Owen at Mongalla station, Torit, and east of the Nile opposite Tombe agree in the characters of the male genitalia with typical *caldarena*; so does a series taken by Kent-Lemon on the Imatong Mts.

Acraea pseudolycia astrigera Btlr.

Several taken at Tali : it occurs in Uganda.

Acraea insignis insignis Dist.

Taken at Lokwi, Lotti, Katire, Tallanga forest. Another specimen from Lokwi was transitional to the form *siginna* Suff., found in Abyssinia as well as in east Africa. The species has not previously been recorded from the Sudan.

Acraea admatha leucographa Ribbe.

Eleven males from Lotti. The form without the white markings, nominotypical, has not been seen from the southern Sudan.

Acraea neobule D. & H.

Taken in Mongalla station and at Torit, Logoforok.

Acraea quirina Fab.

Taken at Lotti. Not previously recorded from the Sudan.

B. (Bahr-el-Ghazal).

Bematistes pseudeuryta G. & S.

A specimen of this rare species was taken at Bendere.

Bematistes epiprotea Btlr.

Taken at Nabagi.

Bematistes epaea epaea Cr.

Typically western specimens of the male were taken at Bendere and Nabagi.

RIODINIDAE.

NEMEOBIINAE.

Abisara neavei neavei Riley.

This, the commonest species of *Abisara* in Uganda, was taken in Mongalla Province at Torit and in Bahr-el-Ghazal at Bendere.

LYCAENIDAE.

LIPTENINAE.

A. (Mongalla).

Alaena subrubra B.-B.

Described from south Sudan. Taken on the Imatong Mts. at Logoforok. It occurs on Mt. Otze on the west bank of the Nile near the Uganda–Sudan border.

Telipna bimaculata albofasciata Auriv.

Taken at Lotti and by Kent-Lemon at Talodi.

Telipna acraeoides Sm. & Kby.

Taken at Lotti. These are the first records known to me of members of this genus from the Sudan.

Pentila pauli Stgr.

A form of this variable species was taken on the Imatong Mts. by Kent-Lemon.

LYCAENINAE.

Lachnocnema brimo Karsch.

Taken by Kent-Lemon on the Imatong Mts.

Deudorix caerulea H. Druce.

Taken by Kent-Lemon on the Imatong Mts., Imilla.

Myrina ficedula Trim.

Taken by Kent-Lemon on the Imatong Mts. at Issourie, and at Torit.

Deudorix dinochares Smith.

Not previously known from the Imatong Mts. : now recorded from Lotti and Torit.

Hypolycaena antifaunus latimacula Joicey & Talbot.

Taken at Issourie on the Imatong Mts. by Kent-Lemon.

Hypolycaena liara H. Druce.

Lotti, Katire, and Magost.

Argiolaus menas H. Druce.

Taken at Torit. The British Museum possesses a specimen from Mumias in Kavirondo, east of Lake Victoria, but it is generally considered a west African species.

Argiolaus ismenias Klug.

Taken plentifully by Kent-Lemon at Torit.

Epamera hemicyanus hemicyanus E. M. Sharpe.

Taken at Lotti.

Epamera bicaudatus Auriv.

Taken by Kent-Lemon at Lyria.

Aphnaeus asterius Plötz.

Taken at Lotti.

Spindasis mozambica Bertol.

Kent-Lemon took this species at Imilla on the Imatong Mts.

Spindasis loxura Rebel.

Taken on the Imatong Mts. by Kent-Lemon.

Chloroselas pseudozeritis azurea Btlr.

Taken by Moysey in Didinga.

Spalgis lemolea Drc.

From Katire.

Anthene lunulata Trim.

Torit, Kent-Lemon.

Anthene lusones Hew.

Specimens from Torit have the orange spot on the fore-wing contracted anteriorly to vein 3.

Lepidochrysops polydialectica B.-B.

Taken by Kent-Lemon at Torit, and on the Lafiet Mountains.

Cupidopsis jobates uranochroa Ung.

This form, described by Ungemach from Abyssinia, was taken by Kent-Lemon at Torit.

B. (Bahr-el-Ghazal).

Telipna acraea D. & H.

Taken at Bendere.

Telipna bimaculata echo Sm. & Kby.

Nabagi. A specimen in the Oxford Museum comes from Haut Kasai, Congo.

Pseudaletis scolia Riley.

A unique female specimen of a large *Pseudaletis* taken by Owen at Bendere and figured on Plate 1 is very possibly the female of this species. The markings vary a little from those of the male in the British Museum.

Hypomyrina nomion Stgr.

Taken at Nabagi. Aurivillius gave " Sierra Leone " as the only locality.

Kopelates perigrapha Karsch.

Nabagi.

Oxylides homeyeri Dew.

Taken at Bendere.

Oxylides faunus albata Auriv.

Taken at Bendere.

Cupidesthes arescopa B.-B.

Bendere.

Triclema lamias Hew.

Taken at Bendi.

Anthene zenkeri Karsch.

Bendere.

HESPERIIDAE.*

A. (Mongalla).

Coeliades menelik Ung.

Taken by Owen on the Boma plateau. Kent-Lemon took a specimen at Loggerum, near the Koss river, 32° 55′ E. and 4° 24′ N. Evans' reproach that the species is unrepresented in the national collection has been removed by the presentation of one of Hodson's specimens from the Hope Department of Entomology, Oxford University Museum.

Celaenorrhinus proxima proxima Mab.

Taken at Lotti by Moysey.

Caprona pillaana casualalla B.-B.

Taken on the Imatong Mts. by Kent-Lemon: a specimen intermediate between *p. casualalla* and *p. pillaana* Wallengr. was taken by him at Torit.

Metisella quadrisignatus quadrisignatus Btlr.

Taken by Moysey on the Imatong Mts. The British Museum specimens all come from Nyasaland and Tanganyika: Kenya is represented by the other subspecies *nanda* Evans.

Kedestes rogersi Druce.

Taken by Kent-Lemon at Kiliu, at the foot of the western slope of the Imatong Mts. 32° 37′ E., 4° 17′ N. A rare species, represented in the British Museum and at Oxford from Kenya Colony only.

Parosmodes aurantii axis Evans.

Taken by Owen at Torit.

B. (Bahr-el-Ghazal).

Pardaleodes reichenowi torensis B.-B.

Taken at Bendere. Known from Uganda and Kenya: the other subspecies *reichenowi* Plötz is the western representative.

* According to Evans' "Catalogue." The determinations are due to his kindly help.

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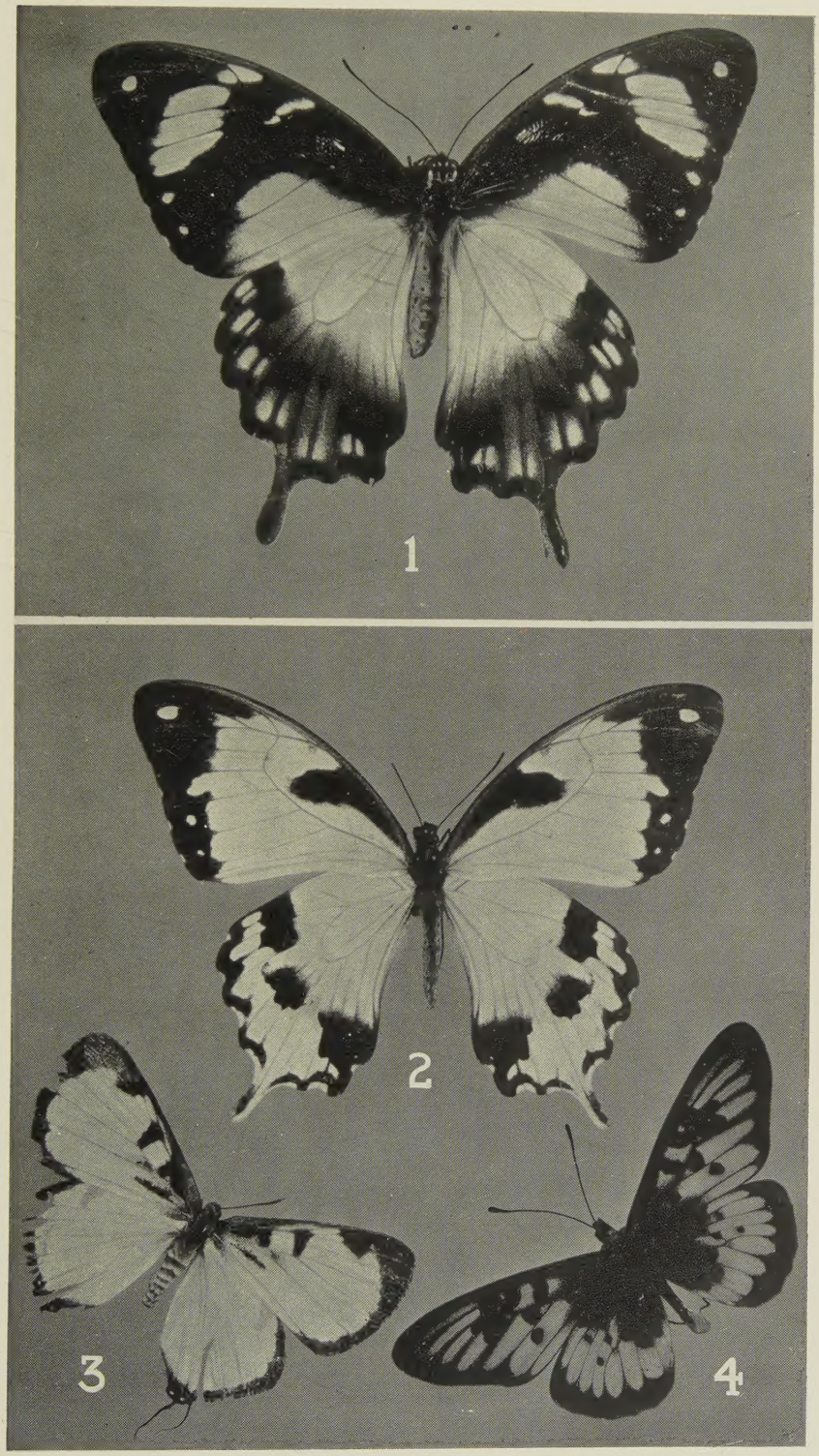
Plate 1.

Fig. 1. *Papilio dardanus antinorii* ♀ form *niavioides* Kheil. Boma plateau, near Abyssinian border, Mongalla Province.
2. *Papilio dardanus antinorii*. Primitive form of female. Boma plateau.
3. *Pseudaletis scolia* Riley? Female. Bahr-el-Ghazal Province, Congo–Nile divide, Bendere, 27.iv.35.
4. *Acraea egina areca* Mab. Male. Boma plateau, 21.ix.36.

Captured by Major I. G. Owen and in his possession.



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